



COMMON VEGETABLE INSECTS

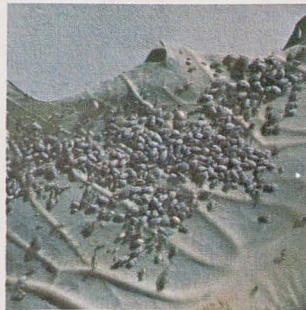
For safe and effective use of insecticides, always identify the problem correctly.



1. Cabbage looper (light green) and imported cabbageworm (dark green)



5. Bean leaf beetle



2. Cabbage aphid. Other species damage many crops.



3. Hornworm showing cocoons of parasite on back



4. Two-spotted spider mite (enlarged). Not an insect.



6. Mexican bean beetle adult, pupa, larvae, eggs, and damage



7. Thrips (enlarged)



8. Root maggot and damage



9. Striped cucumber beetle



10. Spotted cucumber beetle



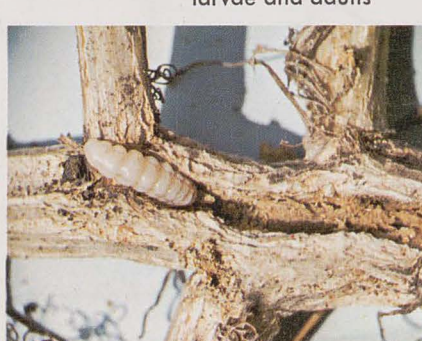
11. Colorado potato beetle larvae and adults



12. Potato flea beetle and damage



13. Potato leafhopper (greatly enlarged) and leafhopper damage

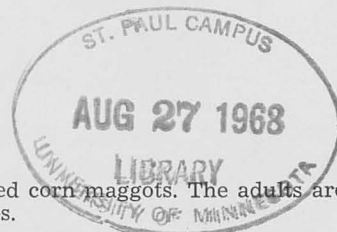


14. Squash vine borer and damage



15. Squash bug nymphs and adult

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1. **CABBAGE LOOPER**, *Trichoplusia ni* (Hubner); Imported Cabbage worm, *Pieris rapae* (L). These two species, plus the larvae of the diamond-backed moth, *Plutella maculipennis* (Curtis), are the principal caterpillars attacking cabbage and related plants in Minnesota. They are leaf chewers and their damage appears as holes in the leaves. The adult of the imported cabbage worm is the familiar cabbage butterfly.

2. **CABBAGE APHID**, *Brevicoryne brassicae* (L). Many species of aphids attack a wide variety of vegetable crops. Aphids suck sap from the plants. This causes plant discoloration, stunting, and curling. In addition some aphids carry diseases, mainly viruses. Some of the aphids secrete sweet, sticky honeydew which attracts ants. A black, sooty-mold fungus frequently grows on this honeydew. Most species of aphids occur as colonies on the undersides of leaves or on stems.

3. **HORNWORM**, *Manduca* sp. The hornworms are very large, conspicuous caterpillars. Adults are the sphinx, or "humming bird," moths. The larvae are frequently heavily parasitized. The most common hornworm, which is a pest of vegetables, is the tomato hornworm. The larvae pupate in the soil and occasionally the brown cigar-shaped pupae are found when working the soil.

4. **SPIDER MITE**, *Tetranychus* sp. Several species of spider mites, or "red spiders," attack vegetable plants. They are sap sucking pests and cause a stunting, distortion, and browning of the infested plants. A fine, dirty webbing is frequently found on the infested foliage.

5. **BEAN LEAF BEETLE**, *Cerotoma trifurcata* (Forster). Two broods of these leaf chewing beetles appear each year. In the spring overwintering beetles feed on the young bean plants. Eggs are laid in the soil and larvae feed primarily on the root nodules. Adults emerge later in the season and feed on the older plants damaging the pods and the developing beans as well as the foliage.

6. **MEXICAN BEAN BEETLE**, *Epilachna varivestis* Mulsant. This important pest of beans is in the same family as the lady bird beetles, but instead of being beneficial is very damaging. Both adults and larvae feed on the foliage. It is not known to occur in Minnesota.

7. **THRIPS**, order Thysanoptera. Thrips are very tiny, slender insects with rasping mouth parts. Feeding causes a stippling or silvering of the plant tissues; damaged areas then become brown and dead.

8. **ROOT MAGGOTS**, various species. Two of the most common maggots attacking vegetable crops are onion maggots and cabbage maggots. Feeding causes death of plants or damage to root crops, especially radishes, turnips, and rutabagas. Sweet corn is some-

times damaged by seed corn maggots. The adults are small, gray or tan flies.

9. **STRIPED CUCUMBER BEETLE**, *Acalymma vittatum* (Fabr.).

10. **SPOTTED CUCUMBER BEETLE**, *Diabrotica undecimpunctata howardi* Barber. The cucumber beetles are among the most damaging pests of melons, pumpkins, squashes, and cucumbers. Adults feed on the foliage and pollen and also transmit bacterial wilt. The larvae feed on roots. The spotted cucumber beetle is also known as the adult of the southern corn rootworm.

11. **COLORADO POTATO BEETLE**, *Leptinotarsa decemlineata* (Say). The well known "potato bug" is really a beetle. Both larvae and adults feed on the foliage. Infestations can cause complete defoliation.

12. **POTATO FLEA BEETLE**, *Epitrix cucumeris* (Harris). The typical damage caused by flea beetles consists of shot holes in the leaves. The potato flea beetle begins feeding early in the spring just as soon as the plants emerge. Infestations are usually heaviest in fields near wooded areas or other places suitable for overwintering adults.

13. **POTATO LEAFHOPPER**, *Empoasca fabae* (Harris). This leafhopper is a very serious pest of legumes as well as potatoes. The adults are about 1/16-inch long and very active. The nymphs are usually found on the undersides of the leaves. Both nymphs and adults suck sap and cause hopper burn. The insect does not overwinter in Minnesota but migrates in from the South each spring.

14. **SQUASH VINE BORER**, *Melittia cucurbitae* (Harris). This pest attacks squash primarily, although it may be found occasionally in other vine crops. There is considerable variation in susceptibility to attack. Some varieties of squash are quite resistant. The adult is one of the "clear wing" moths which is often mistaken for a bumblebee. The borers cause a sudden wilting of the vines and, if they work in the basal part, may kill the plant.

15. **SQUASH BUG**, *Anasa tristis* (De Geer). This important pest of squash and pumpkin does not appear frequently in Minnesota. In some years infestations may be encountered in the southern part of the state. Both adults and nymphs are sapsuckers and heavily damaged foliage turns black. The eggs are very conspicuous: orange in color and laid in masses, usually on the undersides of the leaves.

Current Control Information

The information and color illustrations presented here are designed to help you correctly identify some common vegetable pests. Control measures change quite rapidly, so contact your local county agent, chemical dealer, or state extension entomologists for current control methods.